

DRAFT 1

Non-Traditional Asbestos Work Practice Plan

**Former Anglo Fabrics Mill
35 Pearl Street
Webster, Massachusetts**

July 15, 2015

Prepared for:

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NON-TRADITIONAL ASBESTOS WORK PRACTICE PLAN

1.0 Introduction

This Non-Traditional Asbestos Work Practice Plan (Plan) presents the requirements for managing visible debris assumed or known to be Asbestos Containing Waste Material (ACWM) during the clean-up of the former Anglo Fabric Mill located at 35 Pearl Street in Webster, Massachusetts (the Site). On June 25, 2015, the majority of buildings comprising the mill were significantly damaged by fire. Following the fire, sampling of suspect debris was conducted in various locations to determine their asbestos content. The limited sampling and analysis indicate that asbestos-containing materials (ACM) were present at the site and to some extent have become commingled with the fire debris.

The only remaining structures standing at the site are sections of concrete walls, foundations, slabs and mangled structural steel. Debris piles at the site include various building materials including brick, concrete, metal refuse, insulations, wood, ash and the like.

Consistent with the regulations and policies of the Massachusetts Department of Environmental Protection (MA DEP), non-porous materials that can be adequately cleaned for recycling and or disposal shall be segregated from the remaining debris. Porous materials that can be visually assessed or determined via analysis not to contain asbestos may be segregated for disposal as solid waste.

Whereas asbestos materials are visually identified in or on debris or determined via analytical results to be present within said debris, all materials that cannot be adequately cleaned of contamination shall be placed into lined dumpsters/trailers to be disposed of as asbestos containing waste material in a qualified landfill.

SWA conducted ambient air testing at all perimeter elevations at the site on July 13, 2015 to determine for the presence of elevated airborne fiber concentrations. The air sample results were compared to the Massachusetts Department of Labor Standards (MA DLS) criterion following an abatement project of 0.01 fibers per cubic centimeter of air (0.01 f/cc). Although this strict standard pertains to post-abatement reoccupancy, it is often used to determine potential exposure in other settings. All air samples collected and analyzed via phase contrast microscopy (PCM) on July 13, 2015, were well below the MA DLS standard of 0.01 f/cc indicating that there were no elevated airborne fiber concentration at the time of the testing.

The intent of this plan is to describe processes for proper removal and /handling of ACM and ACWM encountered during course of cleaning the overall site. This includes segregation of visually clean materials and debris for disposal as general construction debris.

The Plan includes the following sections:

- summary of the redevelopment activities that are subject to this Plan;

- Commonwealth of Massachusetts regulatory requirements for asbestos that are relevant to this Plan;
- overview of worker protection requirements;
- description of work area preparations;
- summary of the work practices for the segregation/clean-up activities that are subject to this Plan;
- ACWM handling and disposal requirements;
- level of training required by the on-site contractors involved in the identification, management, and disposal of ACWM;
- general description of the Personnel and Compliance Monitoring that will be performed during the performance of redevelopment activities that are subject to this Plan; and
- summary of required submittals to MA DEP and other local authorities.

A final version of this Plan will be submitted to MA DEP with associated application form for Non-traditional Work Practices (NTWP) (AQ-36). Additionally, a copy of this Plan will be maintained at the Site during the Project, and will be provided in electronic format (PDF) to all contractors employed at the Property that are or could be involved in the work where ACWM could be encountered.

2.0 *Clean-up/Segregation Activities Subject to The Plan*

Clean-up/segregation activities at the Site that are subject to this Plan are limited to the following:

- Collection and cleaning for recycling structural steel, other metals, concrete, brick, and other miscellaneous materials, such as glass and wood that are readily identifiable by a trained asbestos inspector as nonasbestos material
- Removal of concrete walls/foundations and or slabs that can be adequately cleaned for recycling and or processed for on-site fill
- Demolition of unsafe wall sections
- The on-site management of known or assumed ACM and ACWM that is determined to be present

3.0 *Regulatory Requirements*

During the segregation/clean-up activities described above, a Competent Person shall be on site. The Competent Person for terms of this project shall be an Asbestos Inspector who is properly trained and duly certified by the Massachusetts Department of Labor Standards (MA DLS) in accordance with 453 CMR 6.07(2)(a) (Licensed Asbestos Inspector). For debris piles where ACM or ACWM may be present, the Licensed Asbestos Inspector shall visually review representative excavated building materials and other debris contained within the piles for evidence of suspect asbestos. If suspected ACWM is observed, such materials will be presumed to be ACWM unless representative samples of the material are collected by the Asbestos Inspector and analyzed by a

Massachusetts licensed analytical laboratory and results indicate no asbestos detected. The analytical method used shall be Polarized Light Microscopy using EPA 600/R-93/116 Method. For debris piles where no asbestos is detected, debris shall be segregated for disposal in a solid waste landfill.

This project will comply with the relevant portions of USEPA's National Emission Standards for Hazardous Air Pollutants (NESHAPS) (40 CFR Part 61), OSHA regulations regarding Safety and Health Regulations for Construction (29 CFR 1926.1101), and the Massachusetts Department of Labor Standards (453 CMR 6.00), and the MA DEP Regulations regarding Air Pollution Control (310 CMR 7.00, 7.09 and 7.15). It is noted that the MA DEP regulation regarding Asbestos has been amended, effective June 20, 2014.

At least 10 business days prior to the commencement of work that could encounter ACWM, the Contractor shall file the appropriate Asbestos Abatement Notifications and requests for approval, to MA DEP, which will be the following:

- Notification Form (ANF-001)
(<http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-04-anf-001.html>)
- Application for Non-Traditional Asbestos Abatement Work Practice Approval (BWP AQ 36)
(<http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-36.html>). This application will include a Final Copy of this Plan.

Additionally, MA DEP requires notification 10 working days before the start of construction or demolition of a building in accordance with 310 CMR 7.09. See: (BWP AQ 06
(<http://www.mass.gov/eea/agencies/massdep/service/approvals/bwp-aq-06.html>).

4.0 Worker Protection

All demolition and excavation activities will be performed in a manner that minimizes the potential of dust generation. Such measures will include continuous wetting and other Best Management Practices (BMPs) for dust suppression.

All personnel entering the work zones containing ACM or ACWM shall be qualified asbestos abatement workers and or supervisors with current certification. Excavation workers, such as machine operators, shall have a minimum of 16 hours training in asbestos as associated workers. Personal protective equipment (PPE) shall include at a minimum, disposable protective clothing, half face negative pressure respirators, steel toed boots, hard hats, eye-protection with side shields, construction grade gloves and reflective vests.

All areas within perimeter fence enclosing site shall be considered an Exclusion Zone and shall be off limits to all unqualified personnel. Asbestos warning signs shall be placed at the perimeter of the site to deter unauthorized entry.

All work at the Site that involves the management of metals, and general or contaminated construction debris, including the work that is subject to this Plan, will be performed pursuant to an OSHA Health and Safety Plan prepared by the Contractor(s).

Site Workers involved in the identification, management or disposal of ACWM will be trained as required under Massachusetts Asbestos Regulations, as further described in Section 9 of this Plan.

During clean-up/segregation activities, personal exposure monitoring will be performed to establish compliance with the OSHA Permissible Exposure Limit (PEL) for asbestos, as described in Section 10.1 of this Plan.

5.0 Work Area Preparation

For the purposes of this project, the fence at the outer boundary of the property shall be used to establish Exclusion Zone. Asbestos warning signs that prohibit unauthorized access to the Exclusion Zone shall be placed along the fence line at appropriate intervals and entrances to the site shall remain locked at all times the site is unattended.

The Contractor shall construct a 3 chambered Remote Personnel Decontamination Facility (RPDF) contiguous with the exclusion zone that will include a clean room, active shower and equipment room. Contractor may use a mobile decon trailer set-up that can be utilized for the work throughout the site as long as such decon is established as near as possible to exclusion zone.

The Contractor shall establish a material wash load-out (MWL) within the confines of exclusion zone in an area that has been precleaned of all suspect debris and or contamination for the purpose of cleaning nonporous materials to be removed from the site for recycling and or disposal as general construction debris. The MWL shall be constructed of 45 mil rubber membrane, hay bails, ballasts and constructed in a manner that all water can be collected for placement in contaminated dumpsters. All material placed within MWL will be cleaned and properly characterized for disposal.

Contractor shall construct Equipment Decontamination (Decon) Facility for the purposes of cleaning all equipment and trailers/dumpsters prior to exiting the exclusion zone. The Equipment Decon Facility shall be constructed in a manner that allows for the collection of all contaminated water. The Decon Facility shall be of a sufficient size to clean all equipment, and will be ringed with hay bales and covered with rubber membrane on the ground and over hay bales. The Decon Facility will be sloped in a manner that does not allow for contaminated water run-off. Contaminated water contained within the Equipment Decon Facility shall be collected and added to the lined dumpsters/trailers for

disposal as ACM waste. Contractor may collect water to be filtered through 5-micron filtration systems before dispersed into the sewer system if appropriate approvals are attained.

Prior to the commencement of work, dumpsters/trailers lined with (2) 10-mil poly bladder bags shall be staged near the excavation area. The requirement for the containment and storage of ACWM in trailers is further described in Section 8.1 of this Plan.

6.0 Work Area Practices and Sequencing

After establishing the exclusion zone, personnel and equipment decontamination facilities and wash load-out area, remove and decontaminate structural steel and other metal components for removal from the site and eventual recycling.

6.1 Metal and Concrete Reclamation

When performing work associated with removal and cleaning of structural steel, metal and concrete, perform the following:

- Prepare equipment decontamination facility just inside exclusion zone for purposes of decontaminating trucks, trailers/dumpsters prior to exiting the site.
- Prepare diagram showing routes from site entrance to aforementioned structural steel/metal and or clean concrete.
- In order to prepare a clean path to aforementioned metals/concrete, wet surficial debris and soil before collecting it via heavy equipment for placement into lined dumpsters/trailers for disposal as ACM waste.
- After clearing a path, shear structural steel and or break concrete into manageable sizes. Clean metal/concrete pieces using high pressure water lines for cleanliness examination by owner's Technical Representative prior to being transported to trailer/dumpster for removal from site for recycling. Apply water at all times while moving materials to and from reclamation areas in exclusion zone as well as during impact of steel/concrete.
- Prior to exiting site, clean all trailers/dumpsters trucks in the equipment decontamination facility using high pressure water.

6.2 Removal of Known or Assumed Contaminated Debris

Remove debris generated during the fire as known or assumed cross-contaminated ACM unless debris in specific areas can be determined not to contain suspect ACM through visual inspections and or testing and analysis:

- Use clean lanes established during metal reclamation for trucks to back close to materials being collected for disposal as ACM known or assumed waste.
- Prior to entering the exclusion zone, line all trailers/dumpsters with two 6- mil polyethylene bladder bags capable of overlapping for complete seal.

- Trucks shall use the lanes previously cleaned during metal reclamation to points in exclusion zone where known or assumed debris will be bulk-loaded for disposal as asbestos-containing waste material. At all times, the travel lanes and impacted debris piles will be wetted by use of fire-hoses to eliminate emissions.
- Once lined dumpsters/trailers have been filled to allowable capacity, Contractor shall seal the bladder bags by overlapping and sealing with spray-glue and duct tape.
- Prior to exiting exclusion zone, all trucks, trailers/dumpsters and or equipment shall pass through equipment decontamination facility to be wet cleaned of all suspect debris and dirt.

7.0 ACM Handling and Containers

Known or assumed ACM or contaminated debris will be handed by appropriately trained workers as described in Section 9 of this Plan.

Under this Plan, all suspected ACWM will be presumed to be ACWM unless specific areas can be determined not to contain suspect ACM through visual inspections and or testing and analysis.

To the extent feasible, all excavated ACWM will be promptly placed in lined roll off containers/trailers. All roll off containers/trailers will be lined with two 10-mil poly bladder bags. The bladder bags shall be capable of overlapping and being sealed tight utilizing spray-glue and duct tape. All trailers/dumpsters shall be fully enclosed and leak tight.

In the event that the size of the ACWM or potential ACWM is such that it cannot be placed in a trailer or dumpster, or a determination is made by the Licensed Asbestos Inspector that further testing of the potential ACWM is warranted, such ACWM will be placed in a Large Diameter Staging Area within the confines of the exclusion zone for temporary storage, testing prior to off-site transportation and disposal. All such materials will be Adequately Wetted prior to transportation within the Site. All materials placed within the Large Diameter Staging Area will be wetted during assessment and processing. If ACWM is not immediately processed and placed in trailers or dumpsters, as described above, the ACWM will be covered with poly sheeting.

ACWM collected and stored at the site will remain wetted and covered and shall not be stored at the Site for a period greater than 90 days without approval of MA DEP.

All Dumpsters containing asbestos waste shall be placarded with DOT 2212 (Asbestos) 9 sign at all times while on-site.



A permit has been filed with the DEP for Non Traditional Asbestos Abatement Work Practices as identified ACM would be bulk-loaded.

Appropriate warning signs or tape of asbestos hazard shall be posted at the entrance to the exclusion zone. Signs shall contain the following:

DANGER
POTENTIAL ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
PROTECTIVE
CLOTHING REQUIRED IN THIS AREA

8.0 Disposal of ACWM

Unless deemed clean of all suspect asbestos contamination, all other ACWM shall be disposed of in a landfill permitted to accept asbestos waste. All packaged waste materials must include warning labels and waste generator labels with all information required by EPA, OSHA, and DOT as follows:

On outermost layer of container, apply four labels with text as follows:

1. First Label: Warning label

CAUTION
CONTAINS ASBESTOS FIBERS
AVOID OPENING OR BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

2. Second Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE, OR
ACTINOLITE FIBERS IS HAZARDOUS TO YOUR HEALTH

3. Third Label: Provide in accordance with U.S. Department of Transportation (DOT) regulation on hazardous waste marking. 49 CFR Parts 171 and 172.

Hazardous Substances: Final Rule. Published November 21, 1986 and revised February 17, 1987:

RQ HAZARDOUS
SUBSTANCE,
SOLID, NOS,
ORM-E, NA 9188
(ASBESTOS)

4. Fourth Label: Waste generator label

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Labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.

A DOT-licensed hauler shall transport and dispose of waste at a landfill permitted to accept asbestos waste. With each shipment of waste, complete a waste shipment record (WSR) with all information required by 40 CFR Part 61.

9.0 Training

The following additional training will be required for site workers involved in the identification, handling, and management at the Site:

- **Backhoe/Equipment Operators involved in excavations** – 2-hour asbestos awareness training, including hazards specific to the project.
- **Workers and Supervisors** – EPA approved 4-day asbestos abatement worker and 5-day supervisor training course.
- **Licensed Asbestos Inspector** – EPA approved initial 3-day asbestos inspector training and current refresher training.
- **Project Monitor** – 5 day Project Monitor course and refresher training

10.0. Air and Compliance Monitoring

10.1 Contractor Air Monitoring

The Contractor shall perform personal exposure monitoring to determine if the workers are being exposed to airborne concentrations of asbestos in excess of one fiber per cubic centimeter of air (1.0 f/cc) as averaged over a sampling period of 30 minutes, or 0.1 f/cc as an 8-hour time weighted average (TWA), the OSHA Permissible Exposure Limit (PEL).

Such monitoring shall commence upon the identification of ACWM in any work area, and will be performed in accordance with applicable OSHA Standards, and will consist of twenty five percent of employees or a minimum of one employee for each work task in each excavation area. Sampling shall be conducted on the first day of work within each exclusion zone and continue if results exceed 0.05 f/cc, one-half of the PEL, or at the direction of the Licensed Asbestos Inspector. Where results are less than 0.05 f/cc, personal monitoring may be discontinued unless newly identified ACM is detected.

Results shall be made available to the Project Monitor and employees within 24 hours of the sampling period.

10.2 Compliance Monitoring

On a daily basis where ACWM or suspect materials are impacted including but not limited to work area preparation, removal of structural steel, metal concrete, clearing access paths, segregating materials, wash load-out, collection of suspect debris, Owners Technical Representative shall collect ambient air samples at all elevations along the perimeter of the exclusion zone.

Air Samples collected as part of the Compliance Monitoring shall be analyzed on-site (or no later than the end of the day) in a timely manner to monitor for elevated airborne fiber concentrations. The samples shall be collected and analyzed via phase contrast microscopy (PCM) in accordance with NIOSH 7400 A Counting Rule. All analytical results will be compared to the MA DLS post remediation criteria of 0.01 fibers per cubic centimeter of air. Any result exceeding this level shall be considered elevated.

If at any time, airborne fiber concentrations exceed the MA DLS clean air criteria of 0.01 fibers per cubic centimeter of air, the Owners Consultant will promptly notify the Contractor and MA DEP, and all work within the active Exclusion Zone shall be halted. No work shall continue until additional engineering controls are in place to eliminate emissions and MA DEP has authorized the re-start.

Compliance monitoring results will be submitted to the Owner in a written report at the completion of the project. Such results will include a summary of the samples collected, a plan showing each sample location, and a copy of the laboratory testing results report.

11.0 Termination of Work under this Plan

Following the completion of the activities that are subject to this Plan as described in Section 2, the Owner's Consultant in coordination with the Contractor shall examine the ground surface within the exclusion zone for ACWM. The Contractor will arrange for the collection of all Visually Recognizable ACWM at the ground surface at the Site by qualified site workers for containerization and disposal as described in Section 8 of this Plan.

For the purposes of this Plan, Asbestos work at the Site will be completed when the following conditions are met:

1. All construction activities that are subject to the Plan, as described in Section 2 of this Plan have been completed.
2. All ACWM has been removed from the Site and disposed of in accordance with Section 8 of this Plan.
3. Submittal of all Waste Disposal Documentation and Compliance Monitoring Reports, as described in Sections 8 and 10 respectively to MA DEP.

12.0 Reporting and Submittals

Before the commencement of work at the Site, the Contractor will provide the owner with (a) identification of all workers who will be engaged in the activities subject to this Plan and proof of proper training of identified personnel, (b) copies of permits and notifications to regulatory agencies in accordance with this plan, (c) name of disposal facility and licensed hauler that will be utilized to handle ACWM, (d) copies of all required insurance certificates, and (e) a Layout Plan showing exclusion zones, equipment and personal decontamination facilities, anticipated truck routes, means for dust control, and the location and design of wash load-out areas.

Any changes in personnel, the name of disposal facilities or haulers , or significant changes to the anticipated layout or approach to asbestos management on-site will promptly reported to the Owner, and the relevant documentation will be updated.

Copies of these documents and any amendments to these documents, along with a copy of this Plan will be maintained on-site.

At the completion of the project, Contractor shall submit to the Owner within 35 days all waste shipment records relative to the disposal of all ACWM generated on the site.

Prepared by:

Glenn Nelson Massachusetts Certified Project Designer, AD035756
Date: July 15, 2015

===== **SMITH & WESSEL ASSOCIATES, INC.** =====

HAZARDOUS BUILDING MATERIALS AND AIR QUALITY SPECIALISTS

DRAFT

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Consistent with the regulations and policies of the Massachusetts Department of Environmental Protection (MA DEP), non-porous materials that can be adequately cleaned for recycling and or disposal shall be segregated from the remaining debris.

Whereas asbestos materials are visually identified in or on debris or determined via analytical results to be present within said debris, all materials that cannot be adequately cleaned of contamination shall be placed into lined dumpsters/trailers to be disposed of as asbestos containing waste material in a qualified landfill.

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The intent of this plan is to describe processes for proper removal and /handling of ACM and ACWM encountered during course of cleaning the overall site. This includes the segregation, cleaning and decontamination of visually clean, the non-porous materials and debris identified in Section 2.0, Clean-up/Segregation Activities Subject to The Plan for disposal as general construction debris.

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The Plan includes the following sections:

- summary of the redevelopment activities that are subject to this Plan;
- Commonwealth of Massachusetts regulatory requirements for asbestos that are relevant to this Plan;

- overview of worker protection requirements;
- description of work area preparations;
- summary of the work practices for the segregation/clean-up activities that are subject to this Plan;
- ACWM handling and disposal requirements;
- level of training required by the on-site contractors involved in the identification, management, and disposal of ACWM;
- general description of the Personnel and Compliance Monitoring that will be performed during the performance of redevelopment activities that are subject to this Plan; and
- summary of required submittals to MA DEP and other local authorities.

A final version of this Plan will be submitted to MA DEP with associated application form for Non-traditional Work Practices (NTWP) (AQ-36). Additionally, a copy of this Plan will be maintained at the Site during the Project, and will be provided in electronic format (PDF) to all contractors employed at the Property that are or could be involved in the work where ACWM could be encountered.

2.0 Clean-up/Segregation Activities Subject to The Plan

Clean-up/segregation activities at the Site that are subject to this Plan are limited to the following:

- Collection and cleaning for recycling structural steel and other metals
- Removal of concrete walls/foundations and or slabs that can be adequately cleaned for recycling provided these materials are not coated with asbestos-containing damp proofing
- Demolition of unsafe wall sections
- The on-site management of known or assumed ACM and ACWM that is determined to be present

3.0 Regulatory Requirements

During the segregation/clean-up activities described above, a Competent Person shall be on site. The Competent Person for terms of this project shall be an Asbestos Inspector who is properly trained and duly certified by the Massachusetts Department of Labor Standards (MA DLS) in accordance with 453 CMR 6.07(2)(a) (Licensed Asbestos Inspector). For debris piles where ACM or ACWM may be present, the Licensed Asbestos Inspector shall visually review representative excavated building materials and other debris contained within the piles for evidence of suspect asbestos. If suspected ACWM is observed, such materials will be presumed to be ACWM unless representative samples of the material are collected by the Asbestos Inspector and analyzed by a Massachusetts licensed analytical laboratory and results indicate no asbestos detected. The analytical method used shall be Polarized Light Microscopy using EPA 600/R-

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The Contractor shall establish a material wash load-out (MWL) within the confines of exclusion zone in an area that has been precleaned of all suspect debris and or contamination for the purpose of cleaning nonporous materials to be removed from the site for recycling and or disposal as general construction debris. The MWL shall be constructed of 45 mil rubber membrane, hay bails, ballasts and constructed in a manner that all water can be collected for placement in contaminated dumpsters. All material placed within MWL will be cleaned and properly characterized for disposal.

Contractor shall construct Equipment Decontamination (Decon) Facility for the purposes of cleaning all equipment and trailers/dumpsters prior to exiting the exclusion zone. The Equipment Decon Facility shall be constructed in a manner that allows for the collection of all contaminated water. The Decon Facility shall be of a sufficient size to clean all equipment, and will be ringed with hay bales and covered with rubber membrane on the ground and over hay bales. The Decon Facility will be sloped in a manner that does not allow for contaminated water run-off. Contaminated water contained within the Equipment Decon Facility shall be collected and added to the lined dumpsters/trailers for disposal as ACM waste. Contractor may collect water to be filtered through 5-micron

filtration systems before dispersed into the sewer system if appropriate approvals are attained.

Prior to the commencement of work, dumpsters/trailers lined with (2) 10-mil poly bladder bags shall be staged near the excavation area. The requirement for the containment and storage of ACWM in trailers is further described in Section 8.1 of this Plan.

6.0 Work Area Practices and Sequencing

After establishing the exclusion zone, personnel and equipment decontamination facilities and wash load-out area, remove and decontaminate structural steel and other metal components for removal from the site and eventual recycling.

6.1 Metal and Concrete Reclamation

When performing work associated with removal and cleaning of structural steel, metal, standing concrete walls, concrete foundations, concrete slabs and concrete refuse at sized of 5 sf or greater, perform the following:

- Prepare equipment decontamination facility just inside exclusion zone for purposes of decontaminating trucks, trailers/dumpsters prior to exiting the site.
- Prepare diagram showing routes from site entrance to aforementioned structural steel/metal and or clean concrete.
- In order to prepare a clean path to aforementioned metals/concrete, wet surficial debris and soil before collecting it via heavy equipment for placement into lined dumpsters/trailers for disposal as ACM waste.
- After clearing a path, shear structural steel and or break concrete into manageable sizes. Clean metal/concrete pieces using sufficient water. Owner's Technical Representative shall inspect all components for cleanliness. Once deemed clean, Contractor shall apply lock-down encapsulant to all surfaces of impacted materials prior to being transported to trailer/dumpster for removal from site for recycling. Apply water at all times while moving materials to and from reclamation areas in exclusion zone as well as during impact of steel/concrete.
- Prior to exiting site, clean all trailers/dumpsters trucks in the equipment decontamination facility using high pressure water.

6.2 Removal of Known or Assumed Contaminated Debris

Remove debris generated during the fire as known or assumed cross-contaminated ACM unless debris in specific areas can be determined not to contain suspect ACM through visual inspections and or testing and analysis with the exception of metals and concrete identified in Section 2.0 that has been cleaned and decontaminated in accordance with Section 6.0 above :

- Use clean lanes established during metal reclamation for trucks to back close to materials being collected for disposal as ACM known or assumed waste.

- Prior to entering the exclusion zone, line all trailers/dumpsters with two 10- mil polyethylene bladder bags capable of overlapping for complete seal.
- Trucks shall use the lanes previously cleaned during metal reclamation to points in exclusion zone where known or assumed debris will be bulk-loaded for disposal as asbestos-containing waste material. At all times, the travel lanes and impacted debris piles will be wetted by use of fire-hoses to eliminate emissions.
- Once lined dumpsters/trailers have been filled to allowable capacity, Contractor shall seal the bladder bags by overlapping and sealing with spray-glue and duct tape.
- Prior to exiting exclusion zone, all trucks, trailers/dumpsters and or equipment shall pass through equipment decontamination facility to be wet cleaned of all suspect debris and dirt.

7.0 ACM Handling and Containers

Known or assumed ACM or contaminated debris will be handled by appropriately trained workers as described in Section 9 of this Plan.

To the extent feasible, all excavated ACWM will be promptly placed in lined roll off containers/trailers. All roll off containers/trailers will be lined with two 10-mil poly bladder bags. The bladder bags shall be capable of overlapping and being sealed tight utilizing spray-glue and duct tape. All trailers/dumpsters shall be fully enclosed and leak tight.

All Dumpsters containing asbestos waste shall be placarded with DOT 2212 (Asbestos) 9 sign at all times while on-site.



A permit has been filed with the DEP for Non Traditional Asbestos Abatement Work Practices as identified ACM would be bulk-loaded.

Appropriate warning signs or tape of asbestos hazard shall be posted at the entrance to the exclusion zone. Signs shall contain the following:

DANGER
POTENTIAL ASBESTOS

CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
PROTECTIVE
CLOTHING REQUIRED IN THIS AREA

8.0 Disposal of ACWM

All ACWM generated from the site shall be disposed of in a landfill permitted to accept asbestos waste. All packaged waste materials must include warning labels and waste generator labels with all information required by EPA, OSHA, and DOT as follows:

On outermost layer of container, apply four labels with text as follows:

1. First Label: Warning label

CAUTION
CONTAINS ASBESTOS FIBERS
AVOID OPENING OR BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

2. Second Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE, OR
ACTINOLITE FIBERS IS HAZARDOUS TO YOUR HEALTH

3. Third Label: Provide in accordance with U.S. Department of Transportation (DOT) regulation on hazardous waste marking. 49 CFR Parts 171 and 172. Hazardous Substances: Final Rule. Published November 21, 1986 and revised February 17, 1987:

RQ HAZARDOUS
SUBSTANCE,
SOLID, NOS,
ORM-E, NA 9188
(ASBESTOS)

4. Fourth Label: Waste generator label

Former Anglo Fabric Mill
35 Pearl Street
Webster, MA

Labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.

A DOT-licensed hauler shall transport and dispose of waste at a landfill permitted to accept asbestos waste. With each shipment of waste, complete a waste shipment record (WSR) with all information required by 40 CFR Part 61.

9.0 Training

The following additional training will be required for site workers involved in the identification, handling, and management at the Site:

- **Backhoe/Equipment Operators involved in excavations** – 2-hour asbestos awareness training, including hazards specific to the project.
- **Workers and Supervisors** – EPA approved 4-day asbestos abatement worker and 5-day supervisor training course.
- **Licensed Asbestos Inspector** – EPA approved initial 3-day asbestos inspector training and current refresher training.
- **Project Monitor** – 5 day Project Monitor course and refresher training

10.0 Air and Compliance Monitoring

10.1 Contractor Air Monitoring

The Contractor shall perform personal exposure monitoring to determine if the workers are being exposed to airborne concentrations of asbestos in excess of one fiber per cubic centimeter of air (1.0 f/cc) as averaged over a sampling period of 30 minutes, or 0.1 f/cc as an 8-hour time weighted average (TWA), the OSHA Permissible Exposure Limit (PEL).

Such monitoring shall commence upon the identification of ACWM in any work area, and will be performed in accordance with applicable OSHA Standards, and will consist of twenty five percent of employees or a minimum of one employee for each work task in each excavation area. Sampling shall be conducted on the first day of work within each exclusion zone and continue if results exceed 0.05 f/cc, one-half of the PEL, or at the direction of the Licensed Asbestos Inspector. Where results are less than 0.05 f/cc, personal monitoring may be discontinued unless newly identified ACM is detected.

Results shall be made available to the Project Monitor and employees within 24 hours of the sampling period.

10.2 Compliance Monitoring

Owners Technical Representative shall perform continuous ambient air perimeter monitoring on a daily basis where during all handling and loading of ACWM or suspect asbestos containing and/or asbestos contaminated materials are impacted including but not limited to work area preparation, removal of structural steel, metal concrete, clearing access paths, segregating materials, wash load-out, collection of suspect debris and, loading of waste. Owners Technical Representative shall collect ambient air samples at all elevations on all four sides of the site along the perimeter fence which in affect defines the exclusion zone.

Air Samples collected as part of the Compliance Monitoring shall be analyzed on-site in a timely manner to monitor for elevated airborne fiber concentrations. The samples shall be collected and analyzed via phase contrast microscopy (PCM) in accordance with NIOSH 7400 A Counting Rule. All analytical results will be compared to the MA DLS post remediation criteria of 0.01 fibers per cubic centimeter of air. Any result exceeding this level shall be considered elevated. At the end of each shift, Owner's Technical Representative shall provide MA DEP with air sample results via fax or e-mail.

If at any time, airborne fiber concentrations exceed the MA DLS clean air criteria of 0.01 fibers per cubic centimeter of air, the Owners Consultant will promptly notify the Contractor and MA DEP, and all work within the active Exclusion Zone shall be halted. No work shall continue until additional engineering controls are in place to eliminate emissions and MA DEP has authorized the re-start.

Compliance monitoring results will be submitted to the Owner in a written report at the completion of the project. Such results will include a summary of the samples collected, a plan showing each sample location, and a copy of the laboratory testing results report.

11.0 Termination of Work under this Plan

Following the completion of the activities that are subject to this Plan as described in Section 2, the Owner's Consultant in coordination with the Contractor shall examine the ground surface within the exclusion zone for ACWM. The Contractor will arrange for the collection of all Visually Recognizable ACWM at from the ground surface at the Site by qualified site workers for containerization and disposal as described in Section 8 of this Plan. A Massachusetts Department of Labor Standards licensed Asbestos Project Monitor shall conduct the visual inspection of the ground surface as required by 310 CMR 7.15(8)(a) and(b). In the event that the visual inspection identifies asbestos containing material and/or asbestos containing waste material the area(s) will be repeatedly cleaned in accordance with the terms of this plan until there is no remaining asbestos containing material and/or asbestos containing waste material.

For the purposes of this Plan, Asbestos work at the Site will be completed when the following conditions are met:

1. All construction activities that are subject to the Plan, as described in Section 2 of this Plan have been completed.
2. All ACWM has been removed from the Site and disposed of in accordance with Section 8 of this Plan.
3. Submittal of all Waste Disposal Documentation and Compliance Monitoring Reports, as described in Sections 8 and 10 respectively to MA DEP.
4. Full compliance with MA DEP 310 CMR 7:15(8) Visual Inspection Requirements

12.0 Reporting and Submittals

Before the commencement of work at the Site, the Contractor will provide the owner with (a) identification of all workers who will be engaged in the activities subject to this Plan and proof of proper training of identified personnel, (b) copies of permits and notifications to regulatory agencies in accordance with this plan; (c) name of disposal facility and licensed hauler that will be utilized to handle ACWM; (d) copies of all required insurance certificates, and (e) a Layout Plan showing exclusion zones, equipment and personal decontamination facilities, anticipated truck routes, means for dust control, and the location and design of wash load-out areas.

Any changes in personnel, the name of disposal facilities or haulers, or significant changes to the anticipated layout or approach to asbestos management on-site will promptly reported to the Owner and MA DEP, and the relevant documentation will be updated.

Copies of these documents and any amendments to these documents, along with a copy of this Plan will be maintained on-site.

At the completion of the project, Contractor shall submit to the Owner within 35 days all waste shipment records relative to the disposal of all ACWM generated on the site.

Prepared by:

Glenn Nelson Massachusetts Certified Project Designer, AD035756
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